Title (en)

METHOD AND SYSTEM FOR DETECTING THE POSITION OF AND APPARATUS FOR POSITIONING A READ-WRITE HEAD IN SEEK OPERATION ON A DISK MEMORY HAVING DATA AND SERVO SECTORS

Publication

EP 0088554 B1 19860416 (EN)

Application

EP 83300927 A 19830222

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Abstract (en)

[origin: US4499511A] A system for detecting a head position for use in a tracking servo system to accurately and quickly place a read-write head on a selected data track of a magnetic disk memory. The magnetic disk comprises data sectors and servo sectors embedded between the data sectors. A two-phase servo information pattern of a 4-track period is recorded on each of the servo sectors. Servo information is reproduced by the read-write head from each servo sector to produce two-phase first and second position signals which vary like a substantially trapezoidal waveform as a function of head position. A track on which the head is present among the tracks within one period of the servo information pattern is detected dependent on the polarity relation between the first and second position signals. Third and fourth position signals are formed which respectively correspond to the sum of and the difference between the first and second position signals. The present position of the head within the detected track is accurately obtained in accordance with either one of the third and fourth position signals which varies linearly in the detected track. A head actuator is controlled in accordance with a distance between the present position of the head and the selected track, so that the head is accurately and quickly positioned on the target track.

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IPC 8 full level

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CPC (source: EP US)

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Cited by

US5420730A; EP0517478A3; EP0186662A4; EP0314879A3; EP0121145A1; US4631606A; EP0321942A3; US5177651A; EP0443553A3; US5335123A; EP0265092A3; US4825310A; EP0183699A4

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